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EXAMINER

LONSBERRY, HUNTER B.

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/834,427

Applicant(s)

BIXBY ET AL.

Examiner

Hunter B. Lonsberry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 52-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 52-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, 5-8, 10, 13-17, 19, 22-25, 52-54, 56, 60-61, and 64-67, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2002/0129374 A1 to Freeman et al.

Regarding claim 1, Freeman discloses method of producing a real-time video stream from stored MPEG encoded video clips (paragraphs 63, 97), the MPEG encoded video clips being contained in data storage of a video server (paragraph 97), the method comprising:

reading segments of the MPEG encoded video clips from the data storage (paragraphs 97-98), the segments of the MPEG encoded video clips being decoded by respective first and second decoders in a decoder pair (figure 4, decoders 110a/b), the first decoder decoding at least a portion of a first MPEG encoded video clip and the second decoder decoding at least a portion of a second MPEG encoded video clip (paragraphs 87-89), the real-time video stream being obtained by operating a video

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switch 108 (paragraphs 81/83) to switch between a video output of the first decoder and a video output of the second decoder to select a specified In-point frame in the second MPEG encoded video clip that is selectable as any MPEG frame type at any location in an MPEG group of pictures structure (paragraphs 89-93, the splicing can occur at the end of the B frame at the end of GOP1 prior to the I frame of GOP 2).

Regarding claim 2, Freeman discloses that the decoders and video switch are operated in response to control commands from the video server (paragraphs 98-103, the splicing and witching instructions are placed in a scripting language and forwarded to the encoder 312, these commands are relayed to the receivers where the switching and decoding occurs).

Regarding claim 3, Freeman discloses that the control commands include streaming commands used to control the in point of the second MPEG encoded video clip included in the real time video stream (paragraphs 98-103, the commands designate when the switch is to occur and the proper splice point/frame number for the switch to occur).

Regarding claims 5, 19, Freeman discloses asynchronous edit requests between the decoders and the video server may be transmitted (paragraphs 118, 120, 176-187, targeted ads, may be presented to a user).

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Regarding claims 6, 54, 56, Freeman discloses the use of a backchannel encoder 368, which transmits data back to the headend, which includes edit requests (interactive selection) and asynchronous status reports (demographic data for advertising) (paragraphs 118, 120, 169-187).

Regarding claim 7, Freeman discloses that the decoders may request and obtain MPEG encoded data from the video server (paragraphs 76-79).

Regarding claims 8, Freeman discloses that the video server maintains the decoder data buffers in a substantially full condition (paragraphs 85, 124-125).

Regarding claim 10, Freeman discloses that the video switch is operated to switch between the video output of the first and second decoders to a specified in point frame of the second MPEG video clip at the occurrence of a specified time code (paragraphs 99-101).

Regarding claims 13, 22, Freeman discloses that the video server prepares for switching between the first and second clip by loading a portion of the second video clip to buffer memory in response to a request from the second decoder (paragraphs 89,99, 105-107, 125-127).

Regarding claims 14, 23, and 66 Freeman discloses that the video server prepares for the switch between the first and second decoders by initiating a stream of MPEG data to the second decoder so that the data from the first clip does not overlap the second clip (figure 4 buffers 164/165 for the respective first and second decoders 100a/b, paragraphs 124-127, the second stream data is buffered prior to the switch).

Regarding claims 15, 24, and 67, Freeman discloses that the video server prepares for the switch between the first and second decoders by initiating a stream of MPEG data to the second decoder, (paragraphs 124-127) the switching point being referenced by a frame other than an I frame (paragraphs 89-93).

Regarding claims 16, 25, 64, Freeman discloses that the video server and decoders utilize a common house clock signal (paragraphs 86, 100, 112, 117), the video clips are switched to a specified in point frame at the occurrence of a specified time code in the house clock signal (paragraph 99-101).

Regarding claim 17, Freeman discloses method of producing a real-time video stream from stored MPEG encoded video clips (paragraphs 63, 97), the MPEG encoded video clips being contained in data storage of a video server (paragraph 97), the method comprising:

reading segments of the MPEG encoded video clips from the data storage (paragraphs 97-98), the segments of the MPEG encoded video clips being decoded by

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respective first and second decoders in a decoder pair (figure 4, decoders 110a/b), the first decoder decoding at least a portion of a first MPEG encoded video clip and the second decoder decoding at least a portion of a second MPEG encoded video clip (paragraphs 87-89), the real-time video stream being obtained by operating a video switch 108 (paragraphs 81/83) to switch between a video output of the first decoder and a video output of the second decoder to select a specified In-point frame in the second MPEG encoded video clip that is selectable as any MPEG frame type at any location in an MPEG group of pictures structure (paragraphs 89-93, the splicing can occur at the end of the B frame at the end of GOP1 prior to the I frame of GOP 2),

which includes operating the decoders and video switch in response to control commands from the video server, the control commands include streaming commands used to control the in point of the second MPEG2 encoded video clip included in the real-time video stream (paragraphs 99-104),

which includes the decoders requesting and obtaining MPEG2 encoded data from the video server (paragraphs 169-187).

Regarding claim 52, Freeman discloses an apparatus for producing a real-time video stream from stored MPEG encoded video clips (paragraphs 63, 97), said apparatus comprising:

A video server including data storage containing the MPEG encoded video clips (paragraph 97)

An MPEG decoder pair (figure 4, decoders 110a/b) having a video switch 108 (paragraphs 81/83) for switching from the first decoder and the second decoder (paragraphs 87-89) at the occurrence of a specified timecode (paragraphs 99-101), the video server and decoder pair being programmed for switching said video switch for selecting a specified in point frame that is selectable as any MPEG frame type at any location in an MPEG GOP structure (paragraphs 89-93, the splicing can occur at the end of the B frame at the end of GOP1 prior to the I frame of GOP 2),

Wherein the video server and decoder pair are programmed for the video server to control the decoder pair by sending control commands from the video server to the decoder pair (paragraphs 99-104), and the video server and decoder pair are programmed for the decoder pair to request and obtain MPEG encoded data from the video server (paragraphs 169-187).

Regarding claim 53, Freeman discloses the use of at least one respective datalink between the decoder pair and the video server for transmission of MPEG data (figure 4, input to RF demodulators 102a/b, paragraphs 87-88), and at least one dedicated data link between the video server and decoder pair for the transmission of control commands (paragraphs 99-101, 109, 122-124, the data is transmitted downstream along with the MPEG data over the same pathway).

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Regarding claim 60, Freeman discloses an apparatus for producing a real-time video stream from stored MPEG encoded video clips (paragraphs 63, 97), said apparatus comprising:

A video server including data storage containing the MPEG encoded video clips (paragraph 97)

An MPEG decoder pair (figure 4, decoders 110a/b) coupled to the video server via demodulators 102 a/b for producing a real-time video stream from the video clips stored on the video server (paragraphs 87-89),

Wherein the video server includes cached disk storage for storing the MPEG encoded video clips (paragraphs 97/204), a data mover computer 312 coupled to the cached disk storage for streaming segments of the MPEG video clips to the decoder pair (paragraphs 99-101), a controller server computer 316 coupled to the data mover computer 304 for controlling the data mover computer (paragraphs 98-102),

Further including a video switch 108 (paragraphs 81/83) for switching from the first decoder and the second decoder (paragraphs 87-89) at the occurrence of a specified timecode (paragraphs 99-101), the video server and decoder pair being programmed for switching said video switch for selecting a specified in point frame that is selectable as any MPEG frame type at any location in an MPEG GOP structure (paragraphs 89-93, the splicing can occur at the end of the B frame at the end of GOP1 prior to the I frame of GOP 2), the decoders are coupled to the data mover computer 312 via RF demodulators 102 a/b (figure 4).

Regarding claim 61, Freeman discloses that the microprocessor 108 controls the switching functions and the decoders and receives commands from the data mover computer via demodulators 102a/b (Paragraphs 81/83).

Regarding claim 65, Freeman discloses that the data mover computer is programmed to prepare for switching from the video output from one of the decoders in a pair to a specified in-point frame by the second decoder by fetching data from the disk into buffer memory (paragraphs 85, 123-125) in response to a request from the second buffer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11, 20, 58, and 68, are rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent Application Publication 2002/0129374 A1 to Freeman in view of U.S. Patent 6,124,878 to Adams.

Regarding claims 11, 20, 58, and 68, , Freeman discloses that the server maintains the buffers in a substantially full condition (paragraphs 85, 124-125).

Freeman fails to disclose sending a request for data including a buffer free space value and an offset value indicating any data previously transmitted but not yet received from the server, the server responding to the request by sending data to substantially fill the buffer.

Adams discloses a system in which a buffer transmits a fullness value to a server and compares the amount of data current within the data, as well as the age of data previously received from a server and remains in the buffer to a server (figure 9, column 10, lines 14-52, figure 10, column 11, lines 5-60), this data is utilized to determine how much data is to be sent to the buffer, to ensure that the buffer does not become too full.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Freeman to utilize the buffer monitoring features, including a fullness and age of data attribute of Adams, for the advantage of ensuring that a buffer does not become too full or too old.

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3. Claims 9, 12, 21, 57, 59, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent Application Publication 2002/0129374 A1 to Freeman in view of U.S. Patent 5,742,623 to Nuber.

Regarding claims 9, 12, 21, 57, 59, and 69, Freeman discloses that the video server maintains the decoder data buffers in a substantially full condition (paragraphs 85, 124-125).

Freeman fails to disclose detecting a loss of data during transmission from the video server to the decoder pair by computing an expected offset value.

Nuber discloses an MPEG 2 system in which a clock value is added to the PTS value in order to calculate an offset (column 15, lines 17-column 16, line 58, column 17, lines 7-27, column 18, lines 37-53, column 25, lines 33-54) to determine if a packet has been lost and if so, a recovery process is initiated.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Freeman to utilize the offset calculation, error detection and correction features of Nuber, for the advantage of initiating a data recovery process.

4. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent Application Publication 2002/0129374 A1 to Freeman in view of U.S. Patent 6,441,832 to Tao.

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Regarding claim 63, Freeman discloses that a user may select content or targeted content may be presented to the user (paragraphs 118, 120, 176-187).

Freeman fails to disclose the use of an operator control station coupled to the controller server for transmitting a playlist and edit commands from an operator to a controller server for controlling and editing content.

Tao discloses the use of a playlist editor (figures 15/17) via a pc24 and coupled to a number of hard drives 72-78 (column 9, lines 55-column 31), thus enabling a program provider to easily tailor the broadcasting of their content.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Freeman to utilize the playlist and playlist generation computer of Tao, for the advantage of enabling a program provider to easily tailor and manage the broadcasting of their content.

5. Claims 4, 18, 55, 62 and 70-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent Application Publication 2002/0129374 A1 to Freeman in view of U.S. Patent 6,470,378 to Tracton.

Regarding claims 4, 18, 55 and 62, Freeman discloses the use of a backchannel encoder 368 which transmits data back to the headend which includes edit requests (interactive selection) and asynchronous status reports (demographic data for advertising) (paragraphs 118, 120, 169-187).

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Freeman fails to disclose transmitting configuration commands to allow the video server to determine a configuration of the decoder pair and set up configuration parameters.

Tracton discloses a system in which a decoder is polled for its capabilities and configuration information, after which a version of the video content is transmitted which is appropriate for the device (figures 5/6, column 4, line 33-column 5, line 46, column 7, line 15-column 8, line 5).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Freeman to utilize the configuration information transmission features of Tracton, for the advantage of providing content, which is appropriate for the devices decoding capabilities.

Regarding claim 70, see claims 60- 62, 64, 67.

Regarding claim 71, Freeman discloses that the data mover computer is programmed to prepare for switching from the video output from one of the decoders in a pair to a specified in-point frame by the second decoder by fetching data from the disk into buffer memory (paragraphs 85, 123-125) in response to a request from the second buffer.

Regarding claim 72, Freeman discloses that the video server prepares for the switch between the first and second decoders by initiating a stream of MPEG data to

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the second decoder so that the data from the first clip does not overlap the second clip (figure 4 buffers 164/165 for the respective first and second decoders 100a/b, paragraphs 124-127, the second stream data is buffered prior to the switch).

Regarding claim 73, Freeman discloses that the video server prepares for the switch between the first and second decoders by initiating a stream of MPEG data to the second decoder, (paragraphs 124-127) the switching point being referenced by a frame other than an I frame (paragraphs 89-93).

6. Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent Application Publication 2002/0129374 A1 to Freeman in view of U.S. Patent 6,470,378 to Tracton in further view of U.S. Patent 6,124,878 to Adams.

Regarding claim 74, Freeman discloses that the server maintains the buffers in a substantially full condition (paragraphs 85, 124-125).

The combination of Freeman and Traction fails to disclose sending a request for data including a buffer free space value and an offset value indicating any data previously transmitted but not yet received from the server, the server responding to the request by sending data to substantially fill the buffer.

Adams discloses a system in which a buffer transmits a fullness value to a server and compares the amount of data current within the data, as well as the age of data previously received from a server and remains in the buffer to a server (figure 9, column

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10, lines 14-52, figure 10, column 11, lines 5-60), this data is utilized to determine how much data is to be sent to the buffer, to ensure that the buffer does not become too full.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Freeman and Tracton to utilize the buffer monitoring features, including a fullness and age of data attribute of Adams, for the advantage of ensuring that a buffer does not become too full or too old.

7. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent Application Publication 2002/0129374 A1 to Freeman in view of U.S. Patent 6,470,378 to Tracton in further view of U.S. Patent 5,742,623 to Nuber.

Regarding claim 75, Freeman discloses that the video server maintains the decoder data buffers in a substantially full condition (paragraphs 85, 124-125).

The combination of Freeman and Tracton fails to disclose detecting a loss of data during transmission from the video server to the decoder pair by computing an expected offset value.

Nuber discloses an MPEG 2 system in which a clock value is added to the PTS value in order to calculate an offset (column 15, lines 17-column 16, line 58, column 17, lines 7-27, column 18, lines 37-53, column 25, lines 33-54) to determine if a packet has been lost and if so, a recovery process is initiated.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Freeman and Tracton to utilize the offset calculation, error detection and correction features of Nuber, for the advantage of initiating a data recovery process.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 571-272-7298. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBL


11/14/05